

REMARKS

Claims 1-43 are pending in the application. Independent claims 1, 11, 24 and 34 have been amended. No new matter has been added. Applicants respectfully request reconsideration of the rejections set forth in the Office Action dated April 11, 2005 in view of the preceding amendments and following remarks.

Applicants thank the Examiner for the courtesy extended during the personal interview with Applicants' representative on May 24, 2005. During this interview, the difference between the invention and the cited reference was discussed.

Independent claims 1, 11, 24 and 34 have been amended to clarify the present invention and now illuminate how zero pattern information in the block of transform coefficients is derived. More specifically, the independent claims now recite "wherein identifying zero patterns comprises determining the location of zero values or near zero values for multiple rows and for multiple columns in the block of transform coefficients". Support for this amendment can be found throughout the Specification, and in particular on page 11, line 9 to page 13, line 31, for example.

Rejection Under 35 U.S.C. § 102/103

Claims 1-20 and 23-43 were rejected were rejected under 35 U.S.C. 102(e) as being unpatentable over U.S. Patent No. 6,377,627 to Shen et al. ('Shen').

Claims 21 and 22 were rejected were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,377,627 to Shen et al. ('Shen').

Shen determines if a non-zero value is located in the $C_{7,7}$ position of a matrix.

Amended independent claims 1, 11, 24, and 34 now recite "wherein identifying zero patterns comprises determining the location of zero values or near zero values for multiple rows and for multiple columns in the block of transform coefficients". It is respectfully submitted that

the prior art does not teach or suggest such identification. Specifically, Shen does not identify zero patterns and zero pattern information for multiple rows and for multiple columns of a matrix; he only looks at a single value, the $C_{7,7}$ position (4:20).

Shen also cannot be extended to suggest the present invention as now recited. To simplify processing, Shen constructs a modified matrix and a dummy matrix. The modified matrix has “the same content as the original matrix with the exception of a zero in the preselected corner value position”. The dummy matrix has a zero in each matrix position with the exception of the $C_{7,7}$ position. The simplicity of Shen’s system is that the dummy matrix does not change – it is the same every time. The claimed invention may produce different results for different matrices. Shen’s modified matrix and dummy matrix are thus blind to values outside the $C_{7,7}$ corner (as mentioned, Shen does not check for zeroes in multiple rows and multiple columns). Shen’s downstream decoder, which includes an adder that adds the modified matrix and the fixed dummy matrix to produce the original matrix, is also blind to variability. Shen’s downstream decoder assumes a fixed dummy matrix. Zeroes in multiple rows and multiple columns as recited would spoil Shen’s downstream processing since Shen’s downstream decoder would not be able to accommodate variability and recreate the original matrix according to its set operation.

For at least these reasons, Shen does not teach - or suggest - amended independent claims 1, 11, 24 and 34 as now recited.

Claims 2-10, 12-23, 25-33 and 24-43 each depend either directly from independent claims 1, 11, 24 and 34, respectively, and are therefore respectfully submitted to be patentable over the art of record for at least the reasons set forth above with respect to the independent claim. In addition, the dependent claims recite additional elements which when taken in the context of the claimed invention further patentably distinguish the art of record.


Withdrawal of the rejections under 35 USC 102(e) and 35 USC 103(a) is therefore respectfully requested.

Conclusion

Applicants believe that all pending claims are allowable and respectfully requests Notice of Allowance from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Applicants hereby petition for an extension of time which may be required to maintain the pendency of this case, and any required fee for such extension or any further fee required in connection with the filing of this Amendment is to be charged to Deposit Account No. 50-0388 (Order No. CISC214).

Respectfully submitted,
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Limited Recognition under 37 C.F.R. §10.9(b)

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